PA13-SERIES PACKAGED AIR CONDITIONERS

Cooling Capacities: 23,000 to 56,000
SEER: 13.0

GREEN REFRIGERANT R-410A

BACK (OUTDOOR AIRFLOW) END OF UNIT

FRONT (INDOOR AIRFLOW) END OF UNIT

Standard Engineered Features

Air Conditioner Compressor:
Reciprocating compressors with crankcase heaters are standard on 2, 2½ and 3-ton models. Scroll compressors are used on all other models and no crankcase heaters are required.

R-410A Refrigerant:
Designed with R-410A (HFC) non-ozone depleting refrigerant in compliance with the Montreal protocol and 2010 EPA requirements.

ECM Indoor Blower Motor:
Features an electronically commutated motor providing super-high efficiency, low sound levels and soft-start capabilities. The motor is self-adjusting to provide the proper airflow rate for a broad range of static pressure in ducted installations without user adjustment or wiring changes.

Aluminum Finned Copper Coils:
Grooved tubing and enhanced louvered fin for maximum heat transfer and energy efficiency.

Outdoor coil is constructed with special corrosion resistant hydrophilic fin stock with 2-layer coating. (1st layer - blue acrylic primer; 2nd layer - clear topcoat.)

Thermal Expansion Valves:
Models with reciprocating compressors have bleed TXV, models with scroll compressor have non-bleed TXV.

Discharge Muffler:
Standard on 2½ and 3-ton models.

Liquid Line Filter Drier:
Protects system against moisture.

Compressor Control Module:
Built-in off-delay timer adjustable from 30 seconds to 5 minutes. 2-minute on-delay if power interrupt. 120-second bypass for low pressure control, and both soft and manual lockouts for high and low pressure controls. Alarm output for alarm relay.

Phase Rotation Monitor:
Standard on all 3-phase models. Protects against reverse rotation if power supply is not properly connected.

High & Low Pressure Switches are Auto-Reset
Built-in lockout circuit resets from the room thermostat. Provides commercial quality protection to the compressor.

Pre-Painted 20 Gauge Zinc Coated Steel Cabinet:
Cleaned, rinsed, sealed and dried before the polyurethane primer is applied. The cabinet is handsomely finished with a baked on textured enamel, which allows it to withstand 1000 hours of salt spray tests per ASTM B117-03.

Pre-Painted 16 Gauge Zinc Coated Unit Base:
The unit base is treated with the same paint coatings as the cabinet above, insuring years of service.

Top Discharge Outdoor Fan:
Efficiently moves air quietly for effective heat exchange.

Electrical Components & Controls:
Readily accessible for easier service.

Field Installed Accessories

Optional Field Installed Electric Heat Strips:
With automatic limit and thermal cutoff.
- Field installed heater package for all models.
- Features slide-in field assembly with various BTUH outputs.
- Permits stocking of only one unit.

Optional Field Installed Low Ambient Control:
Cycles outdoor fan motor below 55°F outdoor temperature to maintain acceptable condensing pressure.

- Intertek ETL Listed to Standard for Safety Heating and Cooling Equipment ANSI/UL 1995/CSA 22.2 No. 236-05, Third Edition.

Form No. S3383-1112
Supersedes S3383-510

Cooling Capacities and Efficiency Ratings

MODELS	Phase	BTUH	SEER
PA13242-A	1	23,000	13.00
PA13302-A	1	29,000	13.00
PA13362-A, -B	1 and 3	34,000	13.00
PA13422-A, -B, -C	1 and 3	43,000	13.50
PA13482-A, -B, -C	1 and 3	46,500	13.00
PA13602-A, -B, -C	1 and 3	56,000	13.00

Tested and Certified in accordance with ARI Standard 210/240-2003.

General Specifications

Model	PA13242-A	PA13302-A	PA13362-A	PA13362-B	PA13422-A	PA13422-B	PA13422-C	PA13482-A	PA13482-B	PA13482-C	PA13602-A	PA13602-B	PA13602-C
Electric Rating – 60 Hz – Circuit A	230/208-60-1	230/208-60-1	230/208-60-1	230/208-60-3	230/208-60-1	230/208-60-3	460-60-3	230/208-60-1	230/208-60-3	460-60-3	230/208-60-1	230/208-60-3	460-60-3
Operating Voltage Range	197 - 253	197 - 253	197 - 253	187 - 253	197 - 253	187 - 253	414 -506	197 - 253	187 - 253	414 -506	197 - 253	187 - 253	414 -506
Minimum Circuit Ampacity ④	15	18	24	16	33	23	12	33	29	14	39	26	17
BCSC	9	11	15	10	21	15	8	22	14	8	26	16	9
Field Wire Size ③	12	10	8	12	10	10	14	8	10	12	8	10	10
Ground Wire Size	12	10	8	12	10	10	14	8	10	14	8	10	12
Delay Fuse – Max. ②	20	25	35	20	50	35	15	50	40	20	60	40	25
Total unit Amps – 230/208	10.8/11.8	13.3/14.8	16.4/18.4	17.0/13.3	16.2/18.1	14.1/15.4	10.4	23.0/24.7	16.9/18.0	10.7	25.3/28.9	17.7/19.9	11.9
Compressor – Circuit A													
Compressor Type	Recip.	Recip.	Recip.	Recip.	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Volts	230/208	230/208	230/208	230/208	230/208	230/208	460	230/208	230/208	460	230/208	230/208	460
Rated Load Amps	7.5/8.5	9.5/11	12/14	7.6/8.9	11.8/13.7	8.3/9.6	7.7	17/18.7	10.9/12	7.7	19.3/22.9	11.7/13.9	8.6
Lock Rotor Amps	48/48	57/57	74/74	75/75	115/115	115/115	50	117/117	83.1/83.1	50	134/134	110/110	52
Fan Motor and Condenser													
Fan Motor – HP	1/6 - 825	1/6 - 825	1/6 - 825	1/6 - 825	1/4 - 825	1/4 - 825	1/4 - 825	1/4 - 825	1/4 - 825	1/4 - 825	1/4 - 825	1/4 - 825	1/4 - 825
Fan Motor Amps	1.1	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Fan – Dia./CFM	24"/2700	24"/2600	24"/2600	24"/2600	24"/3400	24"/3400	24"/3400	24"/3400	24"/3400	24"/3400	24"/3400	24"/3400	24"/3400
Motor and Evaporator													
Blower Motor – HP ①	1/3 - ECM	1/2 - ECM	1/2 - ECM	1/2 - ECM	1/2 - ECM	1/2 - ECM	1/2 - ECM	3/4 - ECM	3/4 - ECM	3/4 - ECM	3/4 - ECM	3/4 - ECM	3/4 - ECM
Blower Motor – Amps	2.2	2.7	3.3	3.3	3.9	3.9	3.9	4.5	4.5	4.5	5.0	5.0	5.0
Charge (R-410 oz.)	75	85	120	120	160	160	160	160	160	160	160	160	160
Shipping Weight (pounds)	360	410	410	410	440	440	490	440	440	490	450	450	500

① ECM = Electronically Commutated Motor
② Maximum time delay fuse or HACR type circuit breaker for protection of field wiring devices.
③ Based on 75°C copper wire. All wiring must conform to the National Electrical Code and all local codes.
④ These "Minimum Circuit Ampacity" values are to be used for sizing the field power conductors. Refer to National Electric Code (latest revision), Article 310 for power conductor sizing.

Indoor Blower Performance ①

MODEL	Rated ESP	MAX ESP	② Continuous Airflow	③ Rated Cooling CFM	④ Rated Electric Heat CFM
PA1324	0.10	0.50	600	800	1000
PA1330	0.15	0.50	750	1000	1000
PA1336	0.15	0.50	825	1100	1100
PA1342	0.20	0.50	925	1400	1400
PA1348	0.20	0.50	1025	1550	1750
PA1360	0.20	0.50	1150	1750	1750

① Motor will deliver consistent CFM through voltage supply range with no deterioration (197-253V for all 230/208V models).
② Continuous CFM is the total air being circulated during continuous (manual fan) mode.
③ Will occur automatically with a call for "Y" for cooling mode operation.
④ Will occur automatically with a call for "W1" for heating mode operation.

Optional Field Installed Electric Heater Packages

Optional field-installed electric heater packages are available for 5 through 15Kw capacities. The heater packages are UL listed to be field-installed into the basic unit. They feature prewired control circuit wiring with plug-in connector. Simply slide the heater into the unit, plug in the pretested control circuit and connect the separate high voltage circuit wiring.

IMPORTANT: While this electrical data is presented as a guide, it is important to electrically connect properly sized fuses and conductor wires in accordance with the National Electrical Code and all existing local codes.

Optional Field Installed Heater Packages Are Only To Be Used With The Models As Indicated Below

Heater Package Model	Volts & Phase	PA13242-A	PA13302-A	PA13362-A	PA13362-B	PA13422-A	PA13422-B	PA13422-C	PA13482-A	PA13482-B	PA13482-C	PA13602-A	PA13602-B	PA13602-C
EHP323-A05	240/208-1	X	X	X										
EHP323-A10	240/208-1	X	X	X										
EHP323-A15	240/208-1		X	X										
EHP323-B09	240/208-3				X									
EHP323-B15	240/208-3				X									
EHP513-A05	240/208-1					X			X			X		
EHP513-A10	240/208-1					X			X			X		
EHP513-A15	240/208-1					X			X			X		
EHP513-B09	240/208-3						X			X			X	
EHP513-B15	240/208-3						X			X			X	
EHP513-C09	460-3							X			X			X
EHP513-C15	460-3							X			X			X

Optional Field Installed Electric Heater Table — 2 through 5 Ton

Heater Package Model No.	Unit Volts Phases	Htr. KW & Capacity @ 240 Volts (480)		Htr. KW & Capacity @ 208 Volts		240/208V Htr. Amps (480)	Heater Internal Circuit Breaker	Circuit B				
		KW	BTUH	KW	BTUH			No. Field Circuits	③ Min. Circuit Ampacity	① Max. Over Current Protection	② Field Power Wiring	② Ground Wire Size
EHP323-A05	240/208-1	5	17,100	3.75	12,800	20.8/18.1	30/60	1	26/23	30/25	10/10	10
EHP323-A10	240/208-1	10	34,100	7.50	26,000	41.6/36.2		1	53/46	60/50	6/8	10
EHP323-A15	240/208-1	15	51,200	11.25	38,400	62.5/54.1		1	79/68	80/70	4/4	8
EHP513-A05	240/208-1	5	17,100	3.75	12,800	20.8/18.1	30/60	1	26/23	30/25	10/10	10
EHP513-A10	240/208-1	10	34,100	7.50	26,000	41.6/36.2		1	53/46	60/50	6/8	10
EHP513-A15	240/208-1	15	51,200	11.25	38,400	62.5/54.1		1	79/68	80/70	4/4	8
EHP323-B09	240/208-3	9	30,700	6.75	23,000	21.7/18.7	None	1	28/24	30/25	10/10	10
EHP323-B15	240/208-3	15	51,200	11.25	38,400	36.2/31.2		1	46/39	50/40	8/8	10
EHP513-B09	240/208-3	9	30,700	6.75	23,000	21.7/18.7	None	1	28/24	30/25	10/10	10
EHP513-B15	240/208-3	15	51,200	11.25	38,400	36.2/31.2		1	46/39	50/40	8/8	10
EHP513-C09	480-3	9	30,700			10.8	None	1	14	15	14	14
EHP513-C15	480-3	15	51,200			18		1	28	30	10	12

① Maximum size of the time delay fuse or HACR circuit breaker for protection of field wiring devices.

② Based on wire suitable for 75°C. Other wiring materials must be rated for marked "Minimum Circuit Ampacity" or greater. Based on 75°C copper wire. All wiring must conform to the National Electric Code and all local codes.

③ These "Minimum Circuit Ampacity" values are to be used for sizing the field power conductors. Refer to the National Electric Code (latest revision), Article 310 for power conductor sizing.

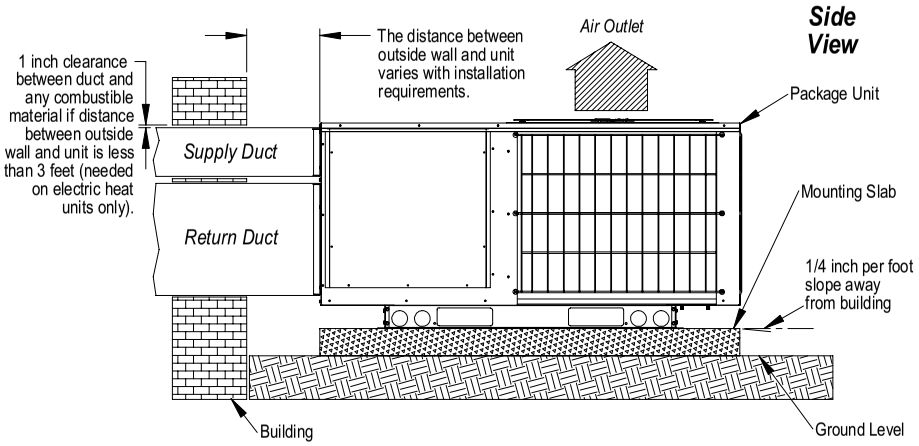
IMPORTANT: While this electrical data is presented as a guide, it is important to electrically connect properly sized fuses and conductor wires in accordance with the National Electrical Code and all existing local codes.

Cooling Application Data — Outdoor Temperature ①

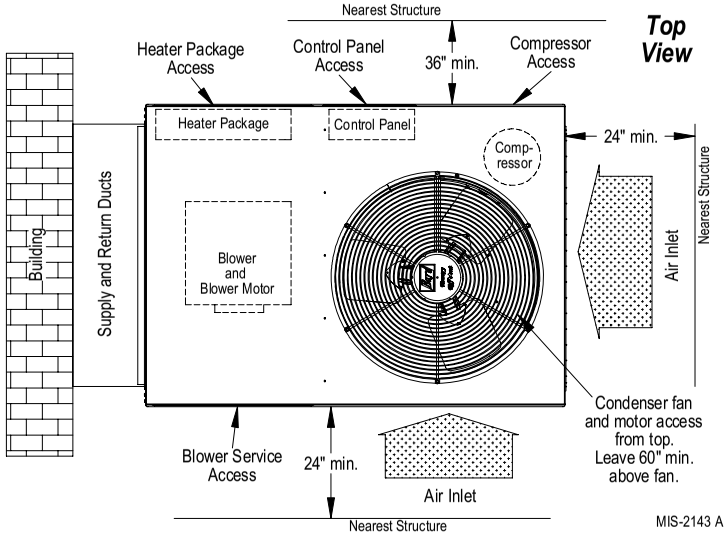
Model	D.B./W.B.②	Cooling Capacity	Outdoor Temperature°F													
			55°F	60°F	65°F	70°F	75°F	80°F	85°F	90°F	95°F	100°F	105°F	110°F	115°F	120°F
PA1324	75/62	Total Cooling	30,100	29,000	27,900	26,750	25,650	24,550	23,500	22,400	21,300	20,100	18,850	17,650	16,450	15,200
		Sensible Cooling	20,600	20,100	19,700	19,250	18,800	18,400	17,950	17,500	17,100	16,650	16,200	15,750	15,250	14,800
	80/67	Total Cooling	31,900	30,750	29,650	28,500	27,400	26,300	25,200	24,100	23,000	21,800	20,600	19,400	18,200	17,000
		Sensible Cooling	20,750	20,250	19,800	19,300	18,800	18,300	17,750	17,250	16,700	16,350	15,000	15,700	15,350	15,000
	85/72	Total Cooling	35,600	34,350	33,150	31,950	30,750	29,600	28,450	27,300	26,150	24,650	23,200	21,750	20,250	18,800
		Sensible Cooling	20,900	20,450	19,950	19,500	19,000	18,500	18,000	17,500	16,950	16,600	16,300	15,950	15,600	15,250
PA1330	75/62	Total Cooling	38,150	36,700	35,300	33,900	32,500	31,100	29,700	28,300	26,850	25,450	24,000	22,550	21,100	19,700
		Sensible Cooling	27,050	26,450	25,850	25,250	24,600	24,050	23,450	22,900	22,300	21,600	20,850	20,150	19,400	18,700
	80/67	Total Cooling	40,400	38,950	37,550	36,100	34,700	33,300	31,850	30,450	29,000	27,600	26,200	24,800	23,400	22,000
		Sensible Cooling	27,300	26,650	25,950	25,300	24,600	23,900	23,200	22,500	21,800	21,200	20,650	20,050	19,500	18,900
	85/72	Total Cooling	45,050	43,550	42,000	40,450	38,900	37,400	35,950	34,450	32,950	31,200	29,500	27,750	26,050	24,300
		Sensible Cooling	27,500	26,850	26,200	25,550	24,850	24,200	23,500	22,800	22,150	21,550	20,950	20,400	19,800	19,200
PA1336	75/62	Total Cooling	43,200	41,700	40,200	38,700	37,150	35,750	34,350	32,900	31,500	29,600	27,750	25,850	23,950	22,100
		Sensible Cooling	48,150	45,450	42,800	40,100	37,450	34,350	31,250	28,150	25,050	24,050	23,000	21,950	20,900	19,850
	80/67	Total Cooling	45,750	44,250	42,700	41,200	39,700	38,300	36,850	35,450	34,000	32,150	30,300	28,400	26,550	24,700
		Sensible Cooling	48,400	45,650	42,900	40,150	37,400	34,200	30,950	27,750	24,500	23,600	22,750	21,850	21,000	20,100
	85/72	Total Cooling	51,050	49,400	47,800	46,150	44,500	43,050	41,550	40,100	38,600	36,350	34,100	31,850	29,550	27,300
		Sensible Cooling	48,850	46,100	43,350	40,550	37,800	34,600	31,350	28,100	24,900	24,000	23,100	22,200	21,300	20,400
PA1342	75/62	Total Cooling	54,250	52,450	50,650	48,900	47,100	45,300	43,450	41,650	39,850	38,150	36,450	34,750	33,100	31,400
		Sensible Cooling	39,500	38,700	37,950	37,150	36,400	35,650	34,950	34,250	33,550	32,500	31,400	30,300	29,250	28,150
	80/67	Total Cooling	57,400	55,650	53,850	52,100	50,300	48,500	46,650	44,850	43,000	41,400	39,850	38,250	36,700	35,100
		Sensible Cooling	39,900	39,000	38,100	37,250	36,350	35,450	34,600	33,700	32,800	31,950	31,100	30,200	29,350	28,500
	85/72	Total Cooling	64,050	62,150	60,250	58,300	56,400	54,500	52,650	50,750	48,850	46,850	44,850	42,850	40,800	38,800
		Sensible Cooling	40,200	39,350	38,450	37,600	36,750	35,900	35,050	34,150	33,300	32,450	31,550	30,700	29,800	28,950
PA1348	75/62	Total Cooling	57,550	55,700	53,900	52,050	50,250	48,452	46,650	44,850	43,100	41,100	39,100	37,150	35,150	33,200
		Sensible Cooling	42,200	41,300	40,400	39,500	38,600	37,700	36,850	35,950	35,100	34,050	33,050	32,000	30,950	29,950
	80/67	Total Cooling	60,850	59,050	57,250	55,450	53,650	51,850	50,100	48,300	46,500	44,600	42,750	40,850	39,000	37,100
		Sensible Cooling	42,600	41,600	40,550	39,550	38,550	37,500	36,450	35,350	34,300	33,500	32,700	31,900	31,100	30,300
	85/72	Total Cooling	67,900	66,000	64,050	62,100	60,150	58,350	56,500	54,650	52,800	50,450	48,100	45,750	43,400	41,000
		Sensible Cooling	42,950	41,950	40,950	39,950	38,950	37,950	36,900	35,850	34,850	34,026	33,200	32,400	31,600	30,800
PA1360	75/62	Total Cooling	66,400	64,550	62,700	60,900	59,050	57,350	55,700	54,000	52,350	49,800	47,300	44,750	42,250	39,700
		Sensible Cooling	46,950	46,250	45,550	44,850	44,200	43,850	43,550	43,250	42,900	40,750	38,550	36,350	34,200	32,000
	80/67	Total Cooling	70,250	68,450	66,650	64,850	63,050	61,400	59,800	58,150	56,000	54,100	51,650	49,250	46,800	44,400
		Sensible Cooling	47,450	46,600	45,800	44,950	44,150	43,600	43,050	42,500	41,950	40,050	38,150	36,200	34,300	32,400
	85/72	Total Cooling	78,350	76,450	74,500	72,600	70,700	69,050	67,450	65,800	64,200	61,200	58,150	55,150	52,100	49,100
		Sensible Cooling	47,800	47,000	46,200	45,450	44,650	44,100	43,600	43,100	42,600	40,650	38,700	36,800	34,850	32,900

① Below 55°F, unit requires a field installed low ambient control model CMA-28.
② Return air temperature °F.

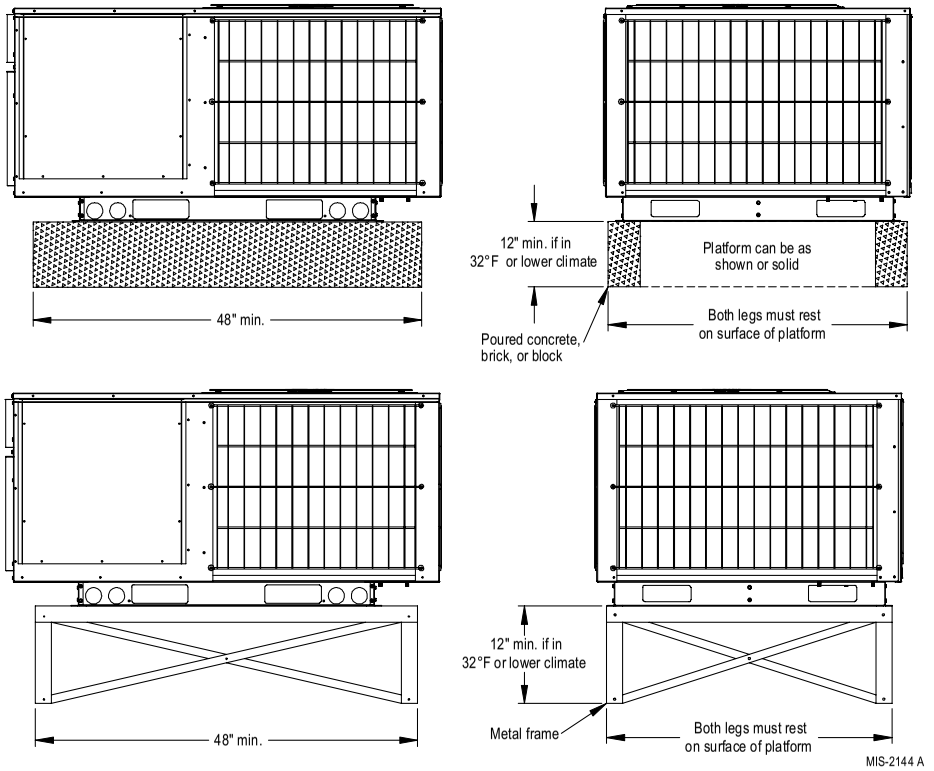
Slab Mounting at Ground Level


Side View
Air Outlet
The distance between outside wall and unit varies with installation requirements.
1 inch clearance between duct and any combustible material if distance between outside wall and unit is less than 3 feet (needed on electric heat units only).
Package Unit
Supply Duct
Return Duct
Mounting Slab
1/4 inch per foot slope away from building
Building
Ground Level

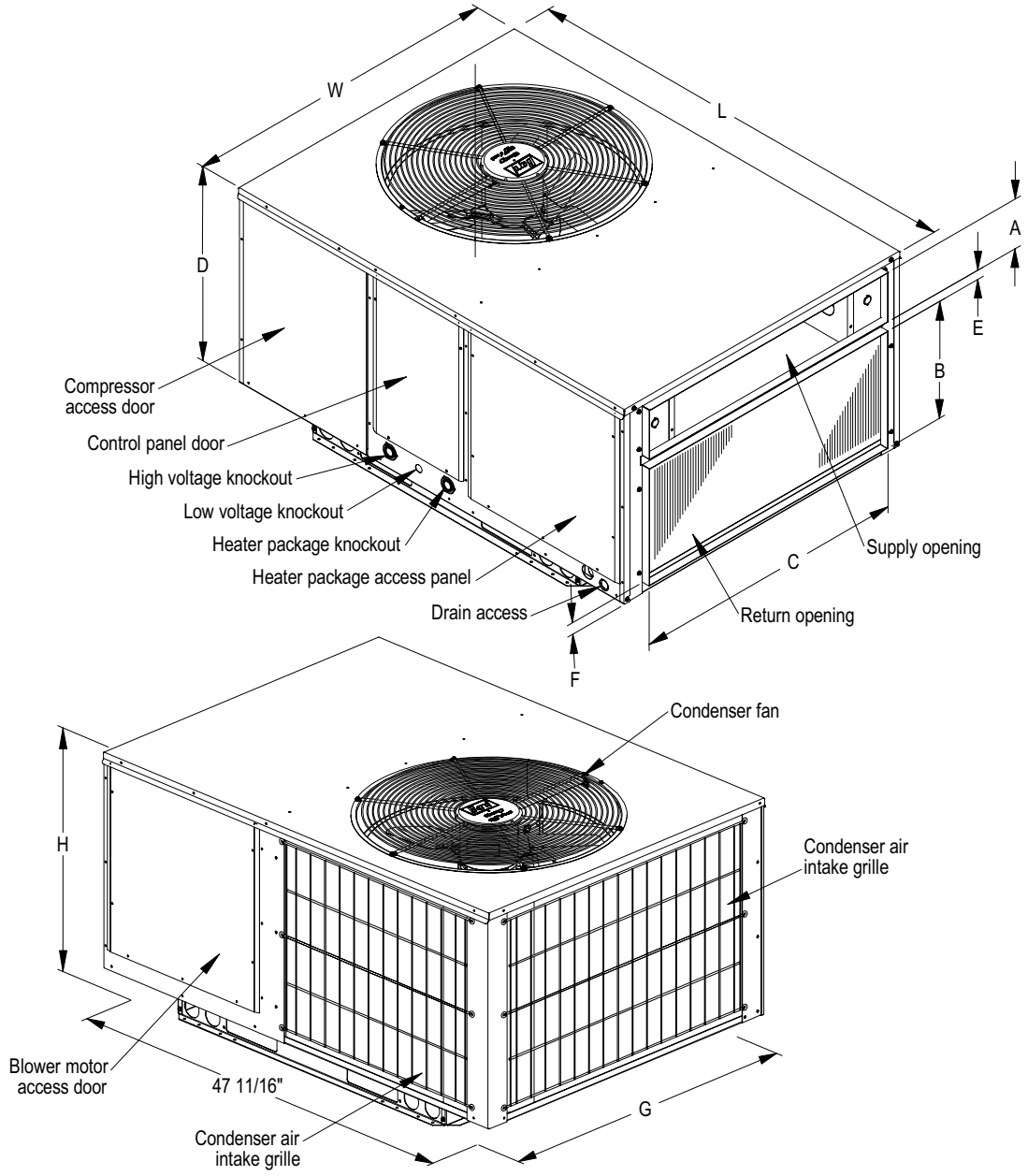
Airflow & Service Access Clearances



Elevated Mounting Platforms (Field Constructed)


48" min.
12" min. if in 32°F or lower climate
Platform can be as shown or solid
Poured concrete, brick, or block
Both legs must rest on surface of platform
48" min.
12" min. if in 32°F or lower climate
Metal frame
Both legs must rest on surface of platform
MIS-2144 A

Unit Dimensions



Unit Dimension Chart

Unit	Supply Size		Return Size		Unit Overall Dimensions			Unit General Dimensions			
	A	C	B	C	H (height)	L (length)	W (width)	D	E	F	G
PA/PH1324,1330,1336	5.875	32.875	13.875	32.875	26.25	53.25	38.125	23.25	1.125	1.375	35.625
PA/PH1342,1348,1360	9.875	37.875	15.875	37.875	33.25	55.25	42.375	30.25	1.5	2.375	38.125

MIS-2142 A

Optional Control Modules — Field Installed

Field Installed Part	Applicable To	Description
CMA-28	All Models	Low Ambient Control
CMC-15	All -A Models	Compressor Start Kit

Optional Equipment — Roof Hood

- Shipped knocked down
- Polyester baked enamel galvanneal cabinet
- Heavy insulation - 1/2 inch
- Built-in filter
- Fresh air damper assembly provides up to 15% outside air.
- **Requires prefabricated roof curb 9042-003 or 9042-004. Order separately.**

Model No.	Applicable To	Shipping Weight
RHP313-A	2, 2-1/2 and 3 ton models	110
RHP513-A	3-1/2, 4 and 5 ton models	120

† Equivalent units - Shipping

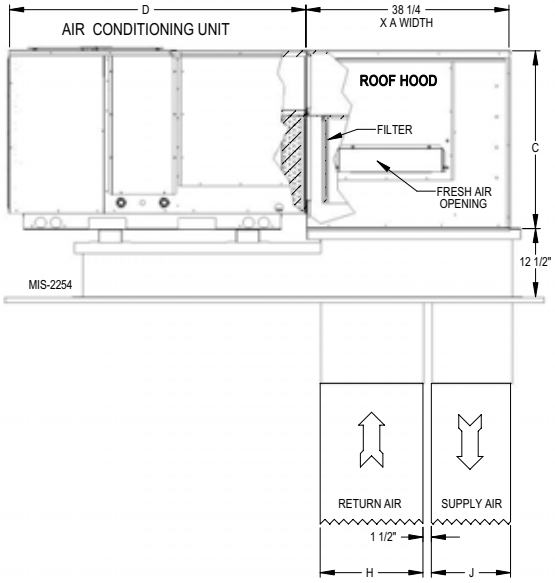
Performance and Application Data — RHP

RHP313-A Ventilation Air

Supply Air Static	Ventilation Air (CFM)										
0.00	N/A	N/A	133	183	226	260	283	290	304	320	370
0.20	N/A	N/A	133	183	226	260	283	290	304	N/A	N/A
0.40	N/A	N/A	133	183	2.26	260	283	290	N/A	N/A	N/A
Return Static	**0.00**	**0.05**	**0.10**	**0.15**	**0.20**	**0.25**	**0.30**	**0.35**	**0.40**	**0.45**	**0.50**

RHP513-A BFAD Ventilation Air

Supply Air Static	Ventilation Air (CFM)										
0.00	N/A	N/A	80	165	215	250	280	310	340	370	400
0.20	N/A	N/A	80	165	215	250	280	310	340	370	400
0.40	N/A	N/A	80	165	215	250	280	310	340	370	400
Return Static	**0.00**	**0.05**	**0.10**	**0.15**	**0.20**	**0.25**	**0.30**	**0.35**	**0.40**	**0.45**	**0.50**



Unit Dimensions

Roof Hood Model	Model	Nominal Tonnage	A	C	D	1" Filter
RHP313-A	PA1324 / PH1324 PA1330 / PH1330 PA1336 / PH1336	2 Ton 2½ Ton 3 Ton	38-1/8	26	53-1/4	(1) 16 x 16 and (1) 16 x 20
RHP513-A	PA1342 / PH1342 PA1348 / PH1348 PA1360 / PH1360	3½ Ton 4 Ton 5 Ton	42	33	55-1/4	(2) 16 x 20

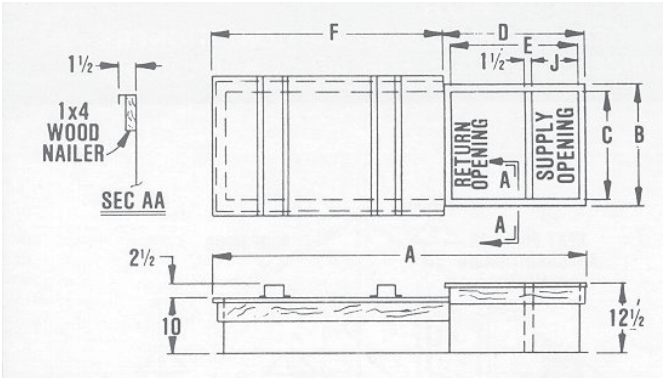
Optional Equipment — Pre-Fabricated Roof Curb

- Heavy gauge galvanized with wood nailing strip.
- **Prefabricated roof curb requires roof hood RHP313-A & RHP513-A. Order separately.**

Model No.	Applicable To	E.U.†	Shipping Weight
9042-003	2, 2-1/2 and 3 ton models	.80	144
9042-004	3-1/2, 4 and 5 ton models	.80	160

† Equivalent units - Shipping

Heavy gauge galvanized with wood nailing strip, welded/leakproof one piece construction - ready to install.



Model	Used With Roof Hood Model	A	B	C ①	D	E	F	J ①	H ①	Heat Pump and Air Conditioning Units
9042-003 (P36 Curb)	RHP313-A	80-3/8	40-1/4	37-1/4	38-3/8	35-3/8	42	14-3/4	19-1/8	All 2, 2-1/2, & 3 Ton Models
9042-004 (P60 Curb)	RHP513-A	82-3/8	44-1/8	41-1/8	38-3/8	35-3/8	44	14-3/4	19-1/8	All 3-1/2, 4 & 5 Ton Models

① Duct Sizing Information:
Return air dimension “C” is length / Supply air dimension “C” is length.
Return air dimension “H” is width / Supply air dimension “J” is width.

Optional Equipment — Energy Recovery Ventilator

- Assures continuous supply of fresh air and reduction of all indoor air pollutants. IAQ ASHRAE 62.1
- Provides 250 to 400 CFM (adjustable) of outside air and exhaust. Efficiencies up to 77% heating and 65% cooling.
- Designed for easy installation on roof hoods RHP313-A and RHP513-A.

Model No.	Shipping Weight
ERVR-A3D-X (230/208V)	125 lbs.
ERVR-C3D-X (460)	125 lbs.

PERFORMANCE AND APPLICATION DATA - ERVR-A3C

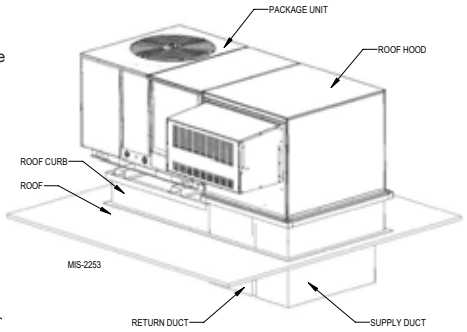
Summer Cooling Performance
(Indoor Design Conditions 75° DB/62° WB)

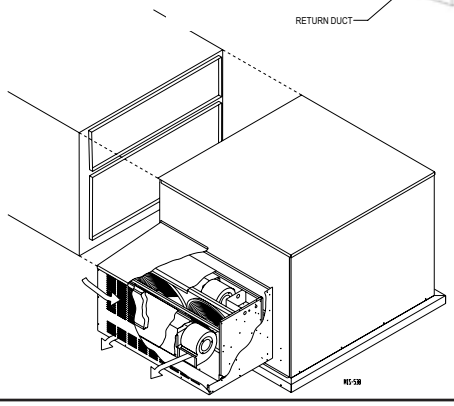
Ambient O.D.		VENTILATION RATE - 400 CFM 63% Efficiency						VENTILATION RATE - 325 CFM 64% Efficiency						VENTILATION RATE - 250 CFM 65% Efficiency					
DB/WB°F		VLT	VLS	VLL	HRT	HRS	HRL	VLT	VLS	VLL	HRT	HRS	HRL	VLT	VLS	VLL	HRT	HRS	HRL
	75	19,080	12,960	6,120	12,020	8,164	3,855	15,502	10,530	4,972	9,921	6,739	3,182	11,925	8,100	3,825	7,751	5,265	2,486
105	70	12,960	12,960	0	8,164	8,164	0	10,530	10,530	0	6,739	6,739	0	8,100	8,100	0	5,265	5,265	0
	65	12,960	12,960	0	8,164	8,164	0	10,530	10,530	0	6,739	6,739	0	8,100	8,100	0	5,265	5,265	0
	80	28,080	10,800	17,280	17,690	6,804	10,886	22,815	8,775	14,040	14,601	5,616	8,985	17,550	6,750	10,800	11,407	4,387	7,019
	75	19,080	10,800	8,280	12,020	6,804	5,216	15,502	8,775	6,727	9,921	5,616	4,305	11,925	6,750	5,175	7,751	4,387	3,363
100	70	10,980	10,800	180	6,917	6,804	113	8,921	8,775	146	5,709	5,616	93	6,862	6,750	112	4,460	4,387	73
	65	10,800	10,800	0	6,804	6,804	0	8,775	8,775	0	5,616	5,616	0	6,750	6,750	0	4,387	4,387	0
	60	10,800	10,800	0	6,804	6,804	0	8,775	8,775	0	5,616	5,616	0	6,750	6,750	0	4,387	4,387	0
	80	28,080	8,640	19,440	17,690	5,443	12,247	22,815	7,020	15,795	14,601	4,492	10,108	17,550	5,400	12,150	11,407	3,510	7,897
	75	19,080	8,640	10,440	12,020	5,443	6,577	15,502	7,020	8,482	9,921	4,492	5,428	11,925	5,400	6,525	7,751	3,510	4,241
95	70	10,980	8,640	2,340	6,917	5,443	1,474	8,921	7,020	1,901	5,709	4,492	1,216	6,862	5,400	1,462	4,460	3,510	950
	65	8,640	8,640	0	5,443	5,443	0	7,020	7,020	0	4,492	4,492	0	5,400	5,400	0	3,510	3,510	0
	60	8,640	8,640	0	5,443	5,443	0	7,020	7,020	0	4,492	4,492	0	5,400	5,400	0	3,510	3,510	0
	80	28,080	6,480	21,600	17,690	4,082	13,608	22,815	5,265	17,550	14,601	3,369	11,232	17,550	4,050	13,500	11,407	2,632	8,774
	75	19,080	6,480	12,600	12,020	4,082	7,938	15,502	5,265	10,237	9,921	3,369	6,552	11,925	4,050	7,875	7,751	2,632	5,118
90	70	10,980	6,480	4,500	6,917	4,082	2,835	8,921	5,265	3,656	5,709	3,369	2,340	6,862	4,050	2,812	4,460	2,632	1,828
	65	6,480	6,480	0	4,082	4,082	0	5,265	5,265	0	3,369	3,369	0	4,050	4,050	0	2,632	2,632	0
	60	6,480	6,480	0	4,082	4,082	0	5,265	5,265	0	3,369	3,369	0	4,050	4,050	0	2,632	2,632	0
	80	28,080	4,320	23,760	17,690	2,721	14,968	22,815	3,510	19,305	14,601	2,246	12,355	17,550	2,700	14,850	11,407	1,755	9,652
	75	19,080	4,320	14,760	12,020	2,721	9,298	15,502	3,510	11,992	9,921	2,246	7,675	11,925	2,700	9,225	7,751	1,755	5,996
85	70	10,980	4,320	6,660	6,917	2,721	4,195	8,921	3,510	5,411	5,709	2,246	3,463	6,862	2,700	4,162	4,460	1,755	2,705
	65	4,320	4,320	0	2,721	2,721	0	3,510	3,510	0	2,246	2,246	0	2,700	2,700	0	1,755	1,755	0
	60	4,320	4,320	0	2,721	2,721	0	3,510	3,510	0	2,246	2,246	0	2,700	2,700	0	1,755	1,755	0
	75	19,080	2,160	16,920	12,020	1,360	10,659	15,502	1,755	13,747	9,921	1,123	8,798	11,925	1,350	10,575	7,751	877	6,873
	70	10,980	2,160	8,820	6,917	1,360	5,556	8,921	1,755	7,166	5,709	1,123	4,586	6,862	1,350	5,512	4,460	877	3,583
80	65	3,780	2,160	1,620	2,381	1,360	1,020	3,071	1,755	1,316	1,965	1,123	842	2,362	1,350	1,012	1,535	877	658
	60	2,160	2,160	0	1,360	1,360	0	1,755	1,755	0	1,123	1,123	0	1,350	1,350	0	877	877	0
	70	10,980	0	10,980	6,917	0	6,917	8,921	0	8,921	5,709	0	5,709	6,862	0	6,862	4,460	0	4,460
75	65	3,780	0	3,780	2,381	0	2,381	3,071	0	3,071	1,965	0	1,965	2,362	0	2,362	1,535	0	1,535
	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Winter Heating Performance
(Indoor Design Conditions 70°F DB)

Ambient O.D.	VENTILATION RATE					
	400 CFM 75% Efficiency		325 CFM 76% Efficiency		250 CFM 77% Efficiency	
DB°F	WVL	WHR	WVL	WHR	WVL	WHR
65	2,160	1,620	1,755	1,333	1,350	1,039
60	4,320	3,240	3,510	2,667	2,700	2,079
55	6,480	4,860	5,265	4,001	4,050	3,118
50	8,640	6,480	7,020	5,335	5,400	4,158
45	10,800	8,100	8,775	6,669	6,750	5,197
40	12,960	9,720	10,530	8,002	8,100	6,237
35	15,120	11,340	12,285	9,336	9,450	7,276
30	17,280	12,960	14,040	10,670	10,800	8,316
25	19,440	14,580	15,795	12,004	12,150	9,355
20	21,600	16,200	17,550	13,338	13,500	10,395
15	23,760	17,820	19,305	14,671	14,850	11,434

Legend:
VLT = Ventilation Load - Total
VLS = Ventilation Load - Sensible
VLL = Ventilation Load - Latent
HRT = Heat Recovery - Total
HRS = Heat Recovery - Sensible
HRL = Heat Recovery - Latent
WVL = Winter Ventilation Load
WHR = Winter Heat Recovery





UNIT DIMENSIONS

Model	Width	Depth	Height	Shipping Weight
ERVR	* 32-3/4	18-3/4	18-3/4	125 lbs.

* Does not include 1" mounting brackets on each side of ERVR.

Bard Manufacturing Company, Inc.
Bryan, Ohio 43506
www.bardhvac.com

CLIMATE CONTROL SOLUTIONS

Due to our continuous product improvement policy, all specifications subject to change without notice.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

Form No. S3383 November, 2012

Supersedes: S3383-510